



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C07D 405/04, A61K 31/505, C07D 409/04, 401/04, 403/04, 405/14, 401/14, 413/04, 413/14		A1	(11) International Publication Number: WO 98/02434 (43) International Publication Date: 22 January 1998 (22.01.98)
(21) International Application Number: PCT/EP97/03672 (22) International Filing Date: 11 July 1997 (11.07.97) (30) Priority Data: 9614755.8 13 July 1996 (13.07.96) GB 9625458.6 7 December 1996 (07.12.96) GB (71) Applicant (for all designated States except US): GLAXO GROUP LIMITED [GB/GB]; Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN (GB). (72) Inventors; and (75) Inventors/Applicants (for US only): COCKERILL, George, Stuart [GB/GB]; Glaxo Wellcome plc, Gunnells Wood Road, Stevenage, Hertfordshire SG1 2NY (GB). CARTER, Malcolm, Clive [GB/GB]; Glaxo Wellcome plc, Gunnells Wood Road, Stevenage, Hertfordshire SG1 2NY (GB). GUNTRIP, Stephen, Barry [GB/GB]; Glaxo Wellcome plc, Gunnells Wood Road, Stevenage, Hertfordshire SG1 2NY (GB). SMITH, Kathryn, Jane [GB/GB]; Glaxo Wellcome plc, Gunnells Wood Road, Stevenage, Hertfordshire SG1 2NY (GB).		(74) Agent: REED, Michael, A.; Glaxo Wellcome plc, Glaxo Wellcome House, Berkeley Avenue, Greenford, Middlesex UB6 0NN (GB). (81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, KE, LS, MW, SD, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i>	

(54) Title: **FUSED HETEROCYCLIC COMPOUNDS AS PROTEIN TYROSINE KINASE INHIBITORS**

(57) Abstract

Substituted heteroaromatic compounds of formula (I) and in particular substituted quinolines and quinazolines, are protein tyrosine kinase inhibitors. The compounds are described as are methods for their preparation, pharmaceutical compositions including such compounds and their use in medicine, for example in the treatment of cancer and psoriasis, or a salt or solvate thereof; wherein X is N or CH; Y is a group W(CH₂), (CH₂)W, or W, in which W is O, S(O)_m wherein m is 0, 1 or 2, or NR^a wherein R^a is hydrogen or a C₁₋₈ alkyl group; R¹ represents a phenyl group or a 5- or 6-membered heterocyclic ring containing 1 to 4 heteroatoms selected from N, O or S(O)_m, wherein m is as defined above, with the provisos that the ring does not contain two adjacent O or S(O)_m atoms and that where the ring contains only N as heteroatom(s) the ring is C-linked to the quinazoline or quinoline ring, R¹ being optionally substituted by one or more R³ groups; P = 0 to 3; U, R², R³ are as defined in the application.

